

What is claimed is:

1. A system for transforming a document from a first format to a different second format, said document being encoded in a language including presentation style determination attributes, comprising:
 - 5 a source of transformation parameters determining a desired presentation style and content structure;
 - an input document processor for transforming a received input document in a first format by parsing said input document and collating elements of said input document into a hierarchically ordered structure representing an intermediate document structure; and
 - 10 a transformation processor for transforming said intermediate document structure into an output document with said desired presentation style of a second format in response to said transformation parameters.
- 15 2. A system according to claim 1, including
 - a preprocessor for resolving conflicts arising due to said transformation parameters in accordance with predetermined conflict resolution rules and wherein
 - said transformation processor transforms said intermediate document
 - 20 structure into said output document with said desired presentation style of said second format in response to transformation parameters processed in accordance with said conflict resolution rules.
- 25 3. A system according to claim 1, including
 - a preprocessor for correcting errors in at least one of, (a) said input document, and (b) said transformation parameters.
- 30 4. A system according to claim 1, including
 - a filter for excluding undesired information from said output document.
5. A system according to claim 1, including
 - a sorting processor for grouping selected elements of said input document into a desired arrangement in said output document.

6. A system according to claim 1, wherein

said input document and said output document are different and comprise one or more of, (a) an SGML document, (b) an XML document, (c) an HTML document (d) a document encoded in a language incorporating distinct content attributes and presentation attributes, and (e) a multimedia file.

7. A system according to claim 6, wherein

said transformation parameters identify input document type and output document type.

8. A system according to claim 1, wherein

said source of transformation parameters comprises an SGML document.

9. A system according to claim 1, wherein

said transformation processor transforms said intermediate document structure into said output document with said desired presentation style by performing at least one of, (a) a reordering operation, (b) a splitting operation, (c) a merging operation and (d) a truncating operation, on content elements of said intermediate document structure.

10. A system according to claim 1, wherein

said transformation processor transforms said intermediate document structure into said output document by,

adopting said desired presentation style determining a display page layout and

allocating content of said intermediate document structure between successive pages in accordance with said determined display page style.

11. A system according to claim 1, wherein

said transformation parameters include transformation rules constraining how said transformation processor transforms said intermediate document structure into said output document.

12. A system according to claim 11, wherein
said transformation rules map elements of said intermediate document
structure to occupy nodes in a hierarchical tree structure allocated to said output
document.

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13. A system according to claim 1, including
a management processor for determining said transformation
parameters in response to input data including, (a) identification of input document
type and (b) identification of output document type including desired presentation
style.

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14. A system according to claim 1, wherein
said transformation parameters include at least two of, (a) a page
layout size, (b) number of characters per line, (c) number of lines per page, (d) font
type and size, (e) heading allocation definition, (f) a scroll or non-scroll selection
parameter, and (g) graphics layout definition.

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15. A graphical User interface system supporting transforming a
document from a first format to a different second format, said document being
encoded in a language including presentation style determination attributes,
comprising:

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a menu generator for generating,

one or more menus permitting User selection of, an input
document and format to be processed, and a desired output document format; and

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an icon permitting User initiation of transformation of said
input document into an output document with a desired presentation style associated
with said desired output document format in response to received transformation
parameters determining a desired presentation style and content structure

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16. A User interface system according to claim 15, including a menu
generator for generating,

one or more menus permitting User selection of a desired presentation
style comprising a display page layout.

17. A User interface system according to claim 15, wherein,
said transformation of said input document into an output document
includes parsing said input document and collating elements of said input document
into a hierarchically ordered structure representing an intermediate document
5 structure for conversion into an output document with said desired presentation style
in response to received transformation parameters determining a desired presentation
style and content structure.

18. A User interface system according to claim 15, wherein,
10 said graphical User interface is a web browser interface.

19. An adaptive processing system for converting a document from a
first format to a selectable different second format for presentation on a display
device, said document being encoded in a language including presentation style
15 determination attributes, comprising:

a management processor for determining transformation parameters in
response to input data identifying a selected second format for presentation on a
display device;

an input document processor for processing a received input document
20 in a first format by parsing said input document and collating elements of said input
document; and

a conversion processor for converting said collated elements into an
output document with said selected second format in response to said determined
transformation parameters.

20. An adaptive processing system according to claim 19, wherein
said conversion processor converts said parsed and collated elements
into an output document with said selected second format for presentation on at least
one display device from, (a) a mobile or non-mobile phone, (b) a personal data
30 assistant device, (c) a PC, (d) a TV (e) another processing device.

21. An adaptive processing system according to claim 19, wherein
said selected second format is selected from at least one of, (a)
different display resolution formats and (b) a scrolling format and (c) a non-scrolling
35 format.

22. A method for converting a document from a first format to a different second format, said document being encoded in a language including presentation style determination attributes, comprising the steps of:

- 5 receiving transformation parameters determining a desired presentation style and content structure;
- resolving conflicts arising due to said transformation parameters in accordance with predetermined conflict resolution rules to produce compatible transformation parameters;
- 10 processing a received input document in a first format by parsing said input document and collating elements of said input document; and
- converting said collated elements into an output document with said desired presentation style of a second format in response to said compatible transformation parameters.

- 15 23. A method according to claim 22, wherein said converting step includes the step of
- adopting a desired presentation style determining a display page layout; and including the step of
 - 20 allocating said collated elements between successive pages in accordance with said determined display page layout.

24. A method for converting a document from a first format to a different second format, said document being encoded in a language including presentation layout determination attributes, comprising the steps of:

- 25 receiving transformation parameters determining a desired presentation layout and content structure;
- processing a received input document in a first format by parsing said input document and collating elements of said input document into a hierarchically ordered structure representing an intermediate document structure; and
- 30 converting said intermediate document structure into an output document with said desired presentation layout of a second format in response to said transformation parameters.

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26. A method according to claim 24, wherein said converting step includes the step of

applying transformation rules mapping elements of said intermediate document structure to occupy locations allocated within said output document.